

# New Species and Subspecies and Other Additions to the Butterflies of Southern Africa, together with New Records of Little Known Species

by

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Advantage was taken of my last two long leaves to undertake extensive tours of the artificial Southern African zone, south of the Zambesi-Cunene line. My object both in 1946-47 and 1952 was to add to our knowledge of many lesser known species of butterflies that inhabit the more remote areas. Some results of the earlier trek, which covered 13,000 miles of road and veld, have already been published (Evans, Pinhey and Van Son). But I was so fortunate on the second journey of 7,000 miles that it seems desirable that some of the more important finds should be recorded. With these I have combined hitherto unpublished records made six years ago in this paper, and arranged them in the order adopted by most modern writers on this branch of Lepidoptera.

## FAMILY PAPILIONIDAE.

### Genus *PAPILIO* Linnaeus

#### *P. junodi* Trimen.

1893, Trans. ent. Soc. Lond.: 138.

There have been few records of this species since it was discovered in the Maraquene bush on the Komati River 20 miles north of Lourenco Marques. In August, 1952, my party, which included my friends, H. Cookson and R. Badham, found it very common in the Dondo forest, 23 miles from Beira along the Umtali road. Its habits are exactly those of the other species of this group. We also took two specimens in the Siluve Hills, 60 miles further inland along the same road. There can be no doubt that it flies all through the low veld bush from Delagoa Bay to Beira, and possibly many miles further north.

## FAMILY PIERIDAE.

### Genus *MYLOTHRIS* Hübner.

#### *M. carcassoni* van Son. Pls. 1 and 2, fig. 1.

1948, The Entomologist: 81, 203.

I first saw this new species in March, 1947, flying rather high over "gallery" forests on the farm Butler North, 40 miles south of Umtali.

It was later described from a single male, but it has since been taken in some numbers by R. Wells, R. Carcasson, H. Cookson and myself in September, 1952, in the same forests. It is extraordinary that so far it has not been seen outside this small area, except for an odd straggler. No description has been made of the ♀, so I give it.

*Allotype* ♀ — Banti Forest Reserve, Umtali District, 28.ix.52, in my collection.

*Upperside* just like the ♂, except that the light sulphur yellow is inclined to whitish, especially in the forewing, and the marginal spots are larger, particularly in the forewing, which has also a distinct linear spot at the end of vein 1. *Underside* — as in ♂, except lemon-yellow areas of both wings are inclined to yellow.

There is thus less difference in colour between the sexes than in any of the other *Mylothris* found in our zone. I have eight ♂♂ which show little variation from Van Son's description of the holotype.

### Genus COLOTIS Hübner.

#### C. eunoma Hopffer.

1855, S.B. preuss. Akad. Wiss.: 640.

My friend, R. Carcasson, reports that this fine "red-tip" is not rare in April and May along the seashore of P.E.A. to the south of Beira. He took several of both sexes among the sand dunes near Villancoulos in May, 1951. Cookson and I found it plentiful near the Beira lighthouse in April, 1953.

### FAMILY SATYRIDAE.

#### Genus MELANITIS Fabricius.

#### M. libya Distant.

1887, Ann. Mag. Nat. Hist.: 5(10), 405.

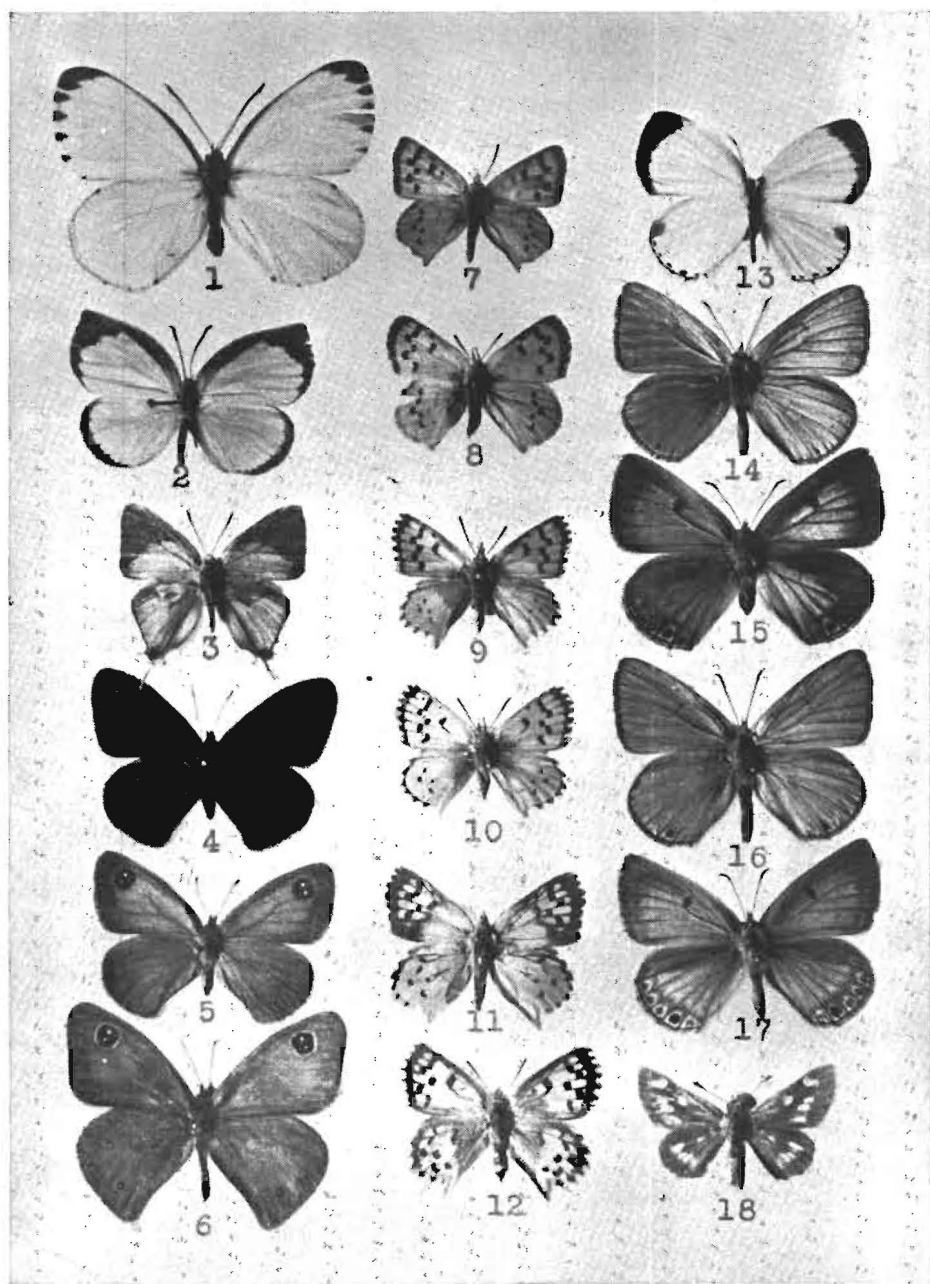
This forest butterfly was very common settling among dead leaves on the ground in the Amatongas forest in August, 1952. I took several more in the deep Chitora valley on the farm Butler South on the eastern border of S. Rhodesia in the following month. It is easy to overlook it in company with *M. leda* Linn., which abound in both localities.

#### Genus MELAMPIAS Hübner.

An undescribed form, possibly the most northern race of *M. magus* Fab., was first taken by me on the summit of the Chitora hills at 7,100 feet in March, 1947. Carcasson reports that it is common there through February and March, but we failed to find evidence of a spring brood in 1952. I was therefore very interested to observe that the same form was flying at 7,400 feet, 50 miles to the south on the second ledge of the Chimanimani Mts. in October. When more material is available, I consider this form deserves a name.

#### M. southeyi sp. n. Pls. 1 and 2, figs. 4 and 5.

Holotype ♂, allotype ♀, and fifteen paratypes (10 ♂♂, 5 ♀♀) in



my collection, eight paratypes (6 ♂♂, 2 ♀♀) in the Transvaal Museum, a pair of paratypes in the British Museum, and two ♂ paratypes each in the collections of H. Cookson, B. D. Barnes and C. G. Dickson. All were captured in the Witteberg Mts., of N.E. Cape, on 20.ix.52, at the top of Joubert Pass between 7,300 and 7,600 feet and on 21.xi.52 on the farm Joubert, 4 miles from New England, from 7,100 to 8,200 feet.

*Holotype* ♂. Head, palpi, antennae above, thorax and abdomen dark brown. Antennae below clearly chequered with white. Antenna club almost spoon-shaped, and white below. Long hairs on lower half of thorax red.

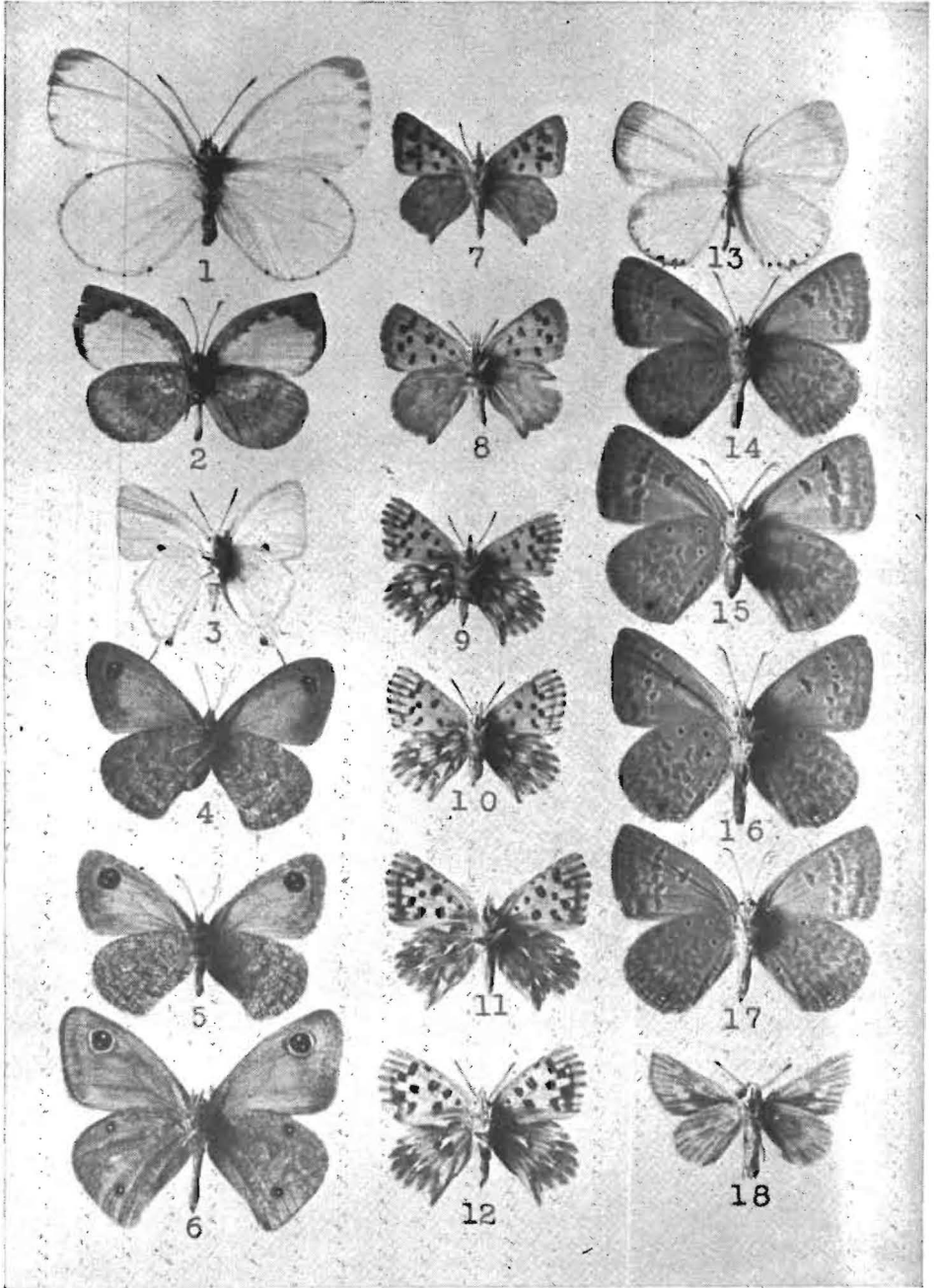
*Wings* — *Upperside*. Ground colour and cilia dark brown with a faint anteciliar darker brown line in both wings. *Forewing* — jet black apical ocellus enclosing the usual two small white spots, the upper being twice as big as the lower. A small dark red patch, which touches the ocellus, lies between veins 2 and 6 and does not reach end of cell. Basal half of cell and of areas 1a and 1b is thinly redscaled. *Hindwing* — unmarked, except for a faint darker brown submarginal line from anal angle to vein 7. *Underside-forewing* — the red patch is much larger, reaching vein 1 and covering the whole of cell, with two faint brown bars, one at cell end and the other one third of the way to the base. Distinct continuous submarginal and anteciliar lines almost black brown, terminating at vein 1, and emphasised by scattered grey scales along dark brown costa and marginal border. *Hindwing* — some dark brownish-grey irroration over whole wing. Two irregular black-brown lines, the outer discal one having projections distad along veins 4 and 5. Between the outer line and an indistinct submarginal line are four small black ocelli in areas 2, 3, 4 and 6; the first two with minute white pupils.

*Allotype* ♀. Closely resembles the holotype ♂, except in the following particulars: (i) ground colour of both wings lighter brown; (ii) the

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PLATE I — UPPERSIDES.

1. ♀ allotype *M. carcassoni* van Son.
2. ♂ holotype *D. millari dondoensis* ssp. nov.
3. ♂ allotype *E. bakeri* Riley.
4. ♂ holotype *M. southeyi* sp. nov.
5. ♀ allotype *M. southeyi* sp. nov.
6. ♂ holotype *M. vansoni* sp. nov.
7. ♂ holotype *P. aridus* sp. nov.
8. ♀ allotype *P. aridus* sp. nov.
9. ♂ holotype *P. pelion* sp. nov.
10. ♀ allotype *P. pelion* sp. nov.
11. ♂ holotype *P. pyramus* sp. nov.
12. ♀ allotype *P. pyramus* sp. nov.
13. ♂ *O. gussfeldti* Dewitz.
14. ♂ holotype *L. ruthica* sp. nov.
15. ♀ allotype *L. ruthica* sp. nov.
16. ♂ holotype *L. barnesi* sp. nov.
17. ♀ allotype *L. barnesi* sp. nov.
18. ♀ allotype *K. lepenula sublineata* ssp. nov.



red patch on *both* sides of forewing is as extensive as it is on the underside of the ♂; (iii) grey irroration on hindwing underside is slightly lighter in colour but more intense, and (iv) all four ocelli of hindwing underside are white centred, that in area 6 more clearly so.

Some of the paratypes show a little variation. In both sexes one or more of the four underside hindwing ocelli are often absent or very indistinct. Occasionally they are prolonged into an oval shape. The white pupils are often absent. In two ♂♂ the forewing upperside ocellus is reduced to two small separate white-centred black spots, and in one of them the red patch has almost disappeared. In several the ocellus looks like a figure eight.

This small dark species is readily distinguished. The unmarked hindwing upperside suggests its congeners *M. irrorata* Trimen, *M. dicksoni* Riley and *M. robertsoni* Riley, the female in particular resembling at first sight a dark specimen of any of these. But the underside is quite different with the two irregular hindwing lines, and bears some relation to those of *M. poetula* Trimen and *M. penningtoni* Riley, though it completely lacks the silvery white of the former, particularly on the veins, and the bright irroration of the latter. The dark underside of the hindwing, and the sex difference between the red patches of the forewing upperside make it unique.

It is surprising that this new species, which occurs in vast numbers, probably throughout the Witteberg range, has escaped notice so long. It seems to prefer steep slopes where the grass has largely given way to small shrubs. The males fly for long distances, dodging round the shrub bases in their search for females, which are characteristically sluggish. They settle on the ground or on stones.

I have much pleasure in naming it after my friend, Lansing Southey, who was with me at the time and actually netted the first specimen, in gratitude for many years of careful observation and collecting on my behalf in the Steynsburg district.

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PLATE II — UNDERSIDES.

1. ♀ allotype *M. carcassoni* van Son.
2. ♂ holotype *D. millaria dondoensis* ssp. nov.
3. ♂ allotype *E. bakeri* Riley.
4. ♂ holotype *M. southeyi* sp. nov.
5. ♀ allotype *M. southeyi* sp. nov.
6. ♂ holotype *M. vansonii* sp. nov.
7. ♂ holotype *P. aridus* sp. nov.
8. ♀ allotype *P. aridus* sp. nov.
9. ♂ holotype *P. pelion* sp. nov.
10. ♀ allotype *P. pelion* sp. nov.
11. ♂ holotype *P. pyramus* sp. nov.
12. ♀ allotype *P. pyramus* sp. nov.
13. ♂ *O. gussfeldti* Dewitz.
14. ♂ holotype *L. ruthica* sp. nov.
15. ♀ allotype *L. ruthica* sp. nov.
16. ♂ holotype *L. barnesi* sp. nov.
17. ♀ allotype *L. barnesi* sp. nov.
18. ♀ allotype *K. lepenula sublineata* ssp. nov.

**M. vansoni** sp. n. Pls. 1 and 2, fig. 6.

Holotype ♂, allotype ♀, two paratype ♂♂ in my collection, one paratype ♂ in Transvaal Museum collection, all taken by me in the Kamiesberg Mts., in Namaqualand, in October, 1946, and 1949 at an altitude of 2,400 feet, or higher.

*Holotype* ♂. *Upperside* — both wings dark brown with dull dark rufous patches. Cilia lighter brown. *Forewing* — Inverted semicircular rufous patch just crosses middle of vein 2 into area 1b, embraces middle half of area 2, proximal two-thirds of area 3, and lower half of area 4 between ocellus and cell, touching the bottom of outer dull yellow circle of large black bipupillate ocellus. Its distal edge is nearer the margin than the ocellus. *Hindwing* — smaller rufous patch covering middle of area 2 and proximal half of area 3, and just crossing into base of area 4. At its anal corner this patch encloses a small white-centred light ringed black ocellus.

*Underside* — *Forewing* — Rufous patch extends into cell, covering outer half, but not as near margin as it is on upperside. Apex and to a less extent costa dusted with dark grey with a darker submarginal line parallel to termen between veins 2 and 5. *Hindwing* — rather obscure dark grey irroration throughout. In area 2 and 6, placed exactly as in *M. robertsoni* Riley, two white centred black ocelli, larger than the one in area 2 on upperside, but outer ring less conspicuous and darker yellow than in forewing.

*Allotype* ♀. *Upperside* like ♂ except in forewing, rufous patch is larger, filling two-thirds of areas 2 and 3 and entering apex of cell. *Underside* exactly as in ♂.

The paratypes show no variation.

This is an interesting species with its upperside nearest to *M. vigilans* Trimen, whose hindwing upperside rufous patch does not enclose the ocellus. The underside, however, is very similar to *M. robertsoni* Riley, but the latter lacks the rufous patch on the hindwing upperside.

All these specimens were taken by me on the grassy and shrubby slopes of the Kamiesberg in early October on the Leliefontein circular drive. I saw several others. As some are worn, September may be the best season for it. Dr. G van Son reports that the genitalia justify specific rank, and I dedicate the new species to him as a tribute to his ready co-operation and zeal for our butterflies over many years.

**FAMILY NYMPHALIDAE.****Genus EUPTERA** Staudinger.**E. pluto kinugnana** Smith.

1889, Ann. Mag. Nat. Hist.: 6(3), 133.

Few records of this forest species exist from our zone. Our party found it not uncommon in the glades of the Dondo forest in August, 1952.

The ♂♂ settle on shrubs 6-10 feet high, and fly aggressively towards any rival, returning to their perch like a small *Cymothoe*. They disappear after 11.30 a.m., probably to the highest trees. The ♀♀ were less common. They flutter about in the shade of the forest, and occasionally were seen on flowers. A pair were seen in copula, settled on a leaf two feet from the ground.

**Genus EUHYPHURA** Staudinger.

**E. achlys** Hopffer.

1855, S.B. preuss. Akad. Wiss.: 641.

No record has been published of this brilliant green tropical species being seen south of the Chirinda Forest in the S.E. corner of S. Rhodesia. It was a great surprise, therefore, when my friend Harold Cookson and I captured several of both sexes in excellent condition in the lower levels (1,000 ft.) of the Ngoye Forest in Zululand in April, 1952. This hitherto remote area can be reached by car by following native tracks for some miles from the Port Durnford Forest Reserve. In December an expedition organised by the Natal University secured further fresh specimens. It has long been known to frequent the forests from the eastern border of S. Rhodesia down to the P.E.A. coast, and collectors are urged to search for it in the vast area that separates this region from its newly discovered haunts hundreds of miles south in Zululand.

**Genus EUPHAEDRA** Hübner.

**E. eleus orientalis** Rothschild.

1898, Nov. Zool.: 5, 97.

Three specimens were taken by Badham and myself in August, 1952, in P.E.A., one in a dry gully in the Siluve Hills, and two in the Amatongas Forest. Carcasson records taking five on fermenting wild figs on the main road through that forest in April.

**Genus APATUOPSIS** Aurivillius.

**A. cleocharis** Hewitson.

1873, Ent. Mon. Mag.: 10, 58.

This small fast flying forest species has only been reported from the forest at Mt. Silinda in S. Rhodesia in our zone with the exception of a single male taken by Barnes on the Vumba. We found it in some numbers in September, 1952, sucking mud along the banks of the Gungunyana stream in the early morning. It is very wary and seldom gives the collector a second chance to net it.

**Genus HYPOLIMNAS** Hübner.

**H. deceptor** Trimen.

1873, Trans. ent. Soc. Lond.: 105.

Very few records of this handsome species have been made from our zone, since the late Alfred Millar successfully bred a large series in Durban.



It was common in the Dondo Forest in August, 1952. David Cookson's keen eye spotted it clustering under the thatch roof of disused native huts and in a depression in a tall anthheap which had been almost perpendicularly cut by the main road. Upwards of a dozen specimens made up each sleeping colony.

#### FAMILY ACRAEIDAE.

##### Genus ACRAEA Fabricius.

##### **A. pharsalus** Ward.

1871, Ent. Mon. Mag.: 8, 81.

This Central African species penetrates our zone down the P.E.A. corridor. Cookson took a male in the Amatongas Forest at the end of August, 1952, and Carcasson took a series in the Maribane bush further south the following month.

##### **A. rabbaiae** Ward.

1873, Ent. Mon. Mag.: 10, 152.

This rare but widespread species along our eastern areas was out in September, 1952, at Mt. Silinda in S. Rhodesia. Two males were captured and two more seen.

#### FAMILY LYCAENIDAE.

##### Genus DELONEURA Trimen

##### **D. millari dondoensis** ssp. n. Pls. 1 and 2, Fig. 2.

In my opinion Pinhey is right in regarding *D. sheppardi* Stevenson as a subspecies of *D. millari* Trimen, in his paper "Records of Rhodesian Butterflies", *Occ. Papers of Nat. Mus. S. Rhod. No. 15*.

In my collection I have 8 ♂♂, 15 ♀♀ *D. millari*. They lack the dark brown marginal band of the hindwing upperside, except in the case of one ♂ and 7 ♀♀, which have a very thin dark marginal line, but one ♀ has a distinct band from veins 4 to 7. Stevenson's *sheppardi* always has a distinct band, which is very irregular proximally, often intruding as much as 2 mm. into the yellow ground colour along the veins, but narrowing to a thin line from vein 3 to anal angle. I have bred specimens of both forms from pupae, which are indistinguishable. In August, 1952, I took a single ♀ after she had oviposited on the trunk of a large leafless tree in a glade of the Dondo Forest. A few days later I disturbed half a dozen or more in a similar tree a few miles nearer the Pungwe River, but only kept two ♂♂, as the others were very worn. But they all agreed in a distinctive hindwing, which suggests *D. innesi* van Son. This Dondo form appears to be a good subspecies, and I give its description.

*Holotype* ♂ (in my collection). *Upperside* — *Forewing* as in *sheppardi* with broad black apical marginal band tapering to fine line at anal angle. *Costa* well bordered almost to base. *Hindwing* — ground colour as in forewing, but with a regular black marginal band, 1.5 mm. wide from vein 7 to vein 3, whence it gradually narrows to a line at the

anal angle. *Underside* as dark as *sheppardi*, but costal border of forewing light spotted.

*Allotype* ♀ (in my collection) like ♂, but underside much lighter and covered with numerous light markings much as in *millari*. A paratype ♂ in Cookson's collection shows no variation.

#### **D. innesi** van Son.

1950, Occ. Pap. Nat. Mus. S. Rhod.: 15, 259.

This species was founded on a single specimen from Nyasaland, and the author later came across a second male in an assorted lot of butterflies from N. Rhodesia. In February, 1953, a friend of mine, who is a keen naturalist but no collector, caught a single ♂ in his fingers on a flower in Salisbury. It has been identified by Dr. van Son as *innesi*, and so must be added to our Southern African list. This singular chance has not so far been followed by further specimens. The male taken was so fresh that it must have hatched in the vicinity. It is extraordinary that the species should have escaped detection for so many years in a district which has been well hunted. The unique specimen is in my collection.

### **Genus EPAMERA** H. H. Druce.

#### **E. bakeri** Riley.

1928, Nov. Zool.: 34, pls. x, xi, fig. 21.

The female only was described by Riley from four specimens. I give a description of the male. Pls. 1 and 2, Fig. 3.

*Allotype* ♂. *Upperside* — hindwing and basal half of forewing same shade of blue as *E. australis* Stevenson. Remainder of forewing black, tails normal. *Forewing* — Blue area same as ♀ except that it does not penetrate area 3 and fills only one-fifth of area 2. Cilia grey. *Hindwing* — Costal and abdominal areas grey brown. Androconial patch set in large dark glossy mark extending to base and to termen on vein 6. Vein 5 is black. No other marks except narrow black marginal line, and large black quadrate spot in area 1c. Lobe overlaid with metallic scales, its black spot is very small, and is surmounted by small dark orange spot. Cilia light grey, but white round lobe. *Underside* — white as in ♀. *Forewing* — faint black discal line from veins 1 to 6. Extremely fine black anteciliar line. Black hair-pencil on inner margin where it bulges outwards into distinct arc. *Hindwing* has a very delicate, complete black discal line parallel to margin. Submarginal line faint, not sharply defined, dark grey from vein 6 to 3, then thickened to form a blood-red spot, and in area 1c represented by a few red scales, which join the lobe spot; thence it is black and sharply defined to vein 1a, where it has some red scales. Anteciliar line very sharp and black. Between it and submarginal line some grey shading especially in area 1c. Lobe as on upperside, but with much more red proximally. Cilia white.

Frons orange. Legs not banded. Antenna-upperside black ringed with white, beneath white rings clearer, and club reddish brown. Holotype

♂ and 9 paratypes in my collection. The latter show little variation except (i) upperside forewing blue in 3 specimens occupies base of area 3; (ii) forewing discal line on underside is sometimes hardly visible; (iii) hindwing underside submarginal line is occasionally reddish, and its red spot in area 3 almost linear.

So far as can be ascertained, there were no records of the ♂ of this beautiful species until I had the good fortune to capture a fine specimen near Trelawney in S. Rhodesia on 2.ii.1947. Three weeks later I took four more in the Birkdale Pass of the Umvukwes. In August, 1952, two more ♂♂ were taken in the Siluve Hills, P.E.A., and on October, 19th I met with a fresh pair in copula and two more ♂♂ on a hill near Arcturus, 20 miles from Salisbury. The males flash round trees at midday, settling on a leaf in the shade.

The male is very like *E. australis* on the upperside and *A. trimeni* Wallengren on the underside, but is much smaller than the latter. It is this that has probably led to its being overlooked in the field.

#### Genus POECILMITIS Butler.

***P. aridus* sp. n.** Pls. 1 and 2, Figs. 7 and 8.

*Holotype* ♂. *Upperside*, both wings golden yellow and black spotted. *Forewing* — slightly angled at vein 5. Cilia light brown. Margin evenly bordered with dark brown about 1 mm. wide, not dentate. Costa very narrowly black near base, slightly wider towards apex. Large rectangular spot at end of cell, and small elongate spot in cell about one-third of the way to base. As in *P. thysbe* Linnaeus, row of 7 spots in areas 1b, 2 to 6, and 9, more or less quadrate, except first and last which are elongate, those in areas 2 and 4 nearer marginal border. Some grey clouding at base widening towards dorsum and not reaching above cell. *Hindwing* — anal angle shortly prolonged, termen not dentate, cilia very light brown, narrowly darkened at vein ends. Extremely thin, dark marginal line. Discal spots, crescentic, arranged as in *P. thysbe* Linnaeus and *P. palmus* Cramer. Faint brown line closing cell. Base dark grey towards dorsum. *Underside* — hindwing and apical and terminal borders of forewing pale buff with faint markings. In both wings a thin reddish terminal line from apex to anal angle. *Forewing* — a little paler than above, spots as in *thysbe* with additional one in base of cell, another in area 10, and another towards the base of area 1b. Buff areas crossed by orange veins and bordered proximally by interrupted orange submarginal line, silver-marked in areas 3 and 4. All spots are silver-centred except those in areas 1b and 3. *Hindwing* — darker marks at end of cell and towards base of area 7. A light ray along vein 1 towards anal angle.

*Allotype* ♀. *Upperside* similar to ♂, but termen of forewing rounded, not angled, black spots in both wings larger, and cilia inclined to whitish between veins. *Underside* as in ♂, but dark cloudings and lighter marks more prominent.

*Holotype* ♂, *allotype* ♀, and 14 paratypes (5 ♂♂, 9 ♀♀) in my

collection. The paratypes only show variation in the size and number of the black spots on upperside. One male has no spots at all on hindwing.

This species is nearest to *P. turneri* Riley, but it can be readily distinguished by the absence of the prominently white chequered cilia in both wings, and on the underside by the thin red terminal line and the almost uniform ground colour of the underside of the hindwing. When one remembers the increasing number of forms that *thysbe* has, it is quite possible that further investigation may establish that *aridus* is an extremely dry form of *turneri*, but at the present time there is not sufficient evidence to warrant this.

In company with A. L. Evans of Viljoenskroon, O.F.S., I took a good series of this "copper" in the Kamiesberg mountains in Namaqualand in October, 1946. They were flying rapidly about low shrubs on steep hillsides and settling frequently. D. A. Swanepoel had taken a very worn specimen two years before near Bitterfontein, and there are three, caught many years ago in the same area, in the collection of the Cape Town Museum.

***P. pyramus* sp. n.** Pls. 1 and 2, Figs. 11 and 12.

Holotype ♂, allotype ♀, 6 paratypes (4 ♂♂, 2 ♀♀), in my collection, all captured on 9.xi.46, half a mile east of the summit of the Zwartberg Pass at 5,000 ft.

*Holotype* ♂. General appearance of *P. thysbe* L., with its black spots and underside pattern. *Upperside* — *forewing* — the silvery-blue basal area is almost as restricted as in *P. thysbe brooksi* Riley, its outer edge running from a point two-fifths along costa from base to the inner margin just beyond halfway. It is bordered distally by a black band which embraces the spot at end of cell, and which widens from vein 2 to inner margin to unite with the marginal border. This dark area is iridescent blue at certain angles. The orange patch is broken by narrow black stripes along veins. The marginal border is much broader than in *thysbe*, entirely without external orange lunules. Discal row of spots show in areas 2-6 and 9. Cilia narrowly chequered with white between veins. *Hindwing* — Silvery-blue basal area does not extend beyond cell or reach base of area 3, but blue sheen covers more than half of the broad orange ground colour, including discal row of 5 spots. Small black terminal spots at ends of veins, joining into thin border from veins 5 to 7, with cilia whitish between them. *Underside* like *thysbe*, but hindwing rich red brown, not brownish ochreous, and lituræ with golden reflection. In both wings the pale internervular marginal streaks are very prominent.

*Allotype* ♀. All spots and marks are like ♀ *P. nigricans* Aurivillius, cilia not so white chequered. It is a larger insect, and has same rich red brown ground colour of hindwing underside as ♂. Basal blue of both wings on upperside slightly less extensive than *nigricans*. Marginal border of hindwing upperside broadly dark brown along costa and apex, but broken

into prominent spots at ends of veins 2 and 3. Discal spots of hindwing much larger than in ♂.

The paratypes show the usual variation of this group. In two males only the top discal spot shows in hindwing.

This very handsome species, which is slightly larger than any I have seen of the *thysbe* group, was flying along a steep hillside in company with typical *nigricans*, but was much bolder in flight. Two miles away and 500 feet lower down the pass on the Prince Albert side there was yet another form in some numbers, which I take to be a form of *P. thysbe trimeni*, not yet described. The *thysbe* group becomes increasingly complex, and our problems with it are not likely to be satisfactorily solved until much breeding is done. Meanwhile this new discovery is so distinct that with Dr. van Son's agreement I give it specific rank. Its rich red brown underside has reminded me of the touching romance of *Thysbe* and *Pyramus*.

**P. pelion** sp. n. Pls. 1 and 2, Figs. 9 and 10.

Holotype ♂, allotype ♀, 20 paratypes (18 ♂♂, 2 ♀♀) in my collection taken at 10,000 feet on Mt. Machacha and near Giants' Castle in the Basutoland mountains in January, and one pair taken in the Witteberg Mts., N.E. Cape, in November, 1952 at 7,300 feet.

*Holotype* ♂. Bright ochreous, nearest to *P. penningtoni* Riley, but forewing margin bluntly angled at vein 4 and basal silvery-blue much less extensive. *Forewing-Upperside*. Costa is only very narrowly edged with dark brown. Basal blue starts on costa at a point not more than one quarter of its length from base, and covers little more than basal half of cell, only the base of area 2, and ends halfway along inner margin. Black spots as in *thysbe*, but all completely separate from basal blue. The spot in area 9 is small but distinct, and set apart from the thin costal border. Marginal border is narrow, proximally slightly dentate and projecting short distance along veins. Cilia more prominently white chequered than in *penningtoni* and *P. turneri* Riley. *Hindwing*—basal silvery blue not as extensive as in *penningtoni*, but blue sheen reaches discal spots. At vein ends there are small black dots. Anal angle much more produced than in *penningtoni*, and almost as much as in *thysbe*. Cilia as in forewing. *Underside*—just like typical *thysbe*.

*Allotype* ♀—same as ♂, except that basal silvery blue is reduced to a minimum on both wings, being little more than steel grey clouding in base of forewing, but rather more extensive in hindwing, where it reaches more than halfway down inner margin. The underside of both wings is paler than ♂.

The restriction of the basal blue in the ♂ and the narrowness of the marginal border gives this species relatively a far greater orange ochreous area in both wings than all its congeners with blue sheen, while the ♀ is unique in this group with its absence of basal blue. It was probably this latter fact that led N. D. Riley to describe as the allotype ♀ *turneri*, a female from Machacha which his plate I think clearly reveals as properly belonging

to this new species (vide 1938, *Trans. ent. Soc. Lond.*: 242). He also refers to it at the end of his description of *P. penningtoni* (ibid. 240). *P. turneri* is quite distinct and flies at much lower levels in the Karroo scrub, several hundreds of miles away. It is possible that this small species will prove to be a sub-species of *thysbe*, when the life history is known. The paratypes show little variation. It is therefore easily distinguished from its nearest ally, *penningtoni*, by its angled forewing margin and the great reduction of the basal blue, especially in the ♀.

I have come across this beautiful little butterfly in a number of places on rocky slopes near the summit of the Drakenberg on the east and west sides of Basutoland, and it is likely to exist throughout that lofty region. It has a very rapid flight, but frequently settles. I was surprised to capture it at the southern end of the Territory at a much lower elevation in the Witteberg mountains near New England.

### Genus **LEPIDOCHRYSOPS** Hedicke.

**L. ruthica** sp. n. Pls. 1 and 2, Figs. 14 and 15.

Holotype ♂, allotype ♀, 9 paratypes (7 ♂♂, 2 ♀♀), all in my collection caught on Rhodes Estate, Inyanga, S. Rhodesia, from October 3 to 8th, 1952.

*Holotype* ♂. *Upperside* — both wings lustrous metallic green with the termen narrowly brown, changing colour when looked at from different angles. It is slightly darker in hue than its near ally *L. chloauges* Bethune-Baker. Cilia light brown. In forewing there is only a faint indication of a narrow brown spot closing cell. The hindwing has a small black spot in area 2, not bordered by orange spot proximally. There is no tail. *Underside* — both wings darkish grey, somewhat lighter along inner margin of forewing, with dark marks narrowly edged with very light grey, and both having distinct, thin and dark anteciliar line. *Forewing* with large spot closing cell. Discal row of 6 spots more or less circular in areas 1b to 6, that in 2 oblique and nearer base than others. Dark submarginal band, bordered proximally by light grey sagittate internervular marks and distally by lunules. Cilia same as ground colour. *Hindwing* has 3 subbasal almost black spots in areas 1a and 7, and in cell. Discal row of 8 internervular spots, the first in 1b and last in 7 being similar to subbasal ones, and of the rest those in 2 and 6 are nearer base. Median spot of same dark colour at end of cell. Submarginal band as in forewing, but proximally more sagittate. In area 2 dark spot larger than on upperside with bronze metallic scales, and a few dark yellow scales proximally. A few more metallic scales on termen in area 1c.

*Allotype* ♀. *Upperside* — bronzy green lustre as in ♂, but very broadly bordered in both wings with dark brown. *Forewing* — dark border 3 mm. wide along whole costa, widening to 4-5 mm. along margin, where it extends narrowly along veins 2-3 mm. into green. A much darker large oval spot at end of cell. *Hindwing* — dark border is so wide (along costa it is 5-6

mm.) that green lustre is restricted to cell and half areas 1c, 2, 3, 4. Marginal lunules show faintly through dark border. A fairly broad anteciliar line is separated from lunular spots by narrow green strip in areas 2-5. Veins 2-4 are more prominently darkened than in forewing almost to cell, interrupting light brown cilia. An indistinct brown bar closes cell. Spot in area 2 large and black, proximally bordered by narrow orange lunule. *Underside*—like ♂ in both wings, but spot in area 2 somewhat larger.

Paratypes show little variation except: (i) on the upperside of the hindwing four ♂♂ have a very small orange lunule above the black spot in area 2, and (ii) in one ♀ the discal row of hindwing spots are represented in areas 2-4 by dark spots.

This beautiful species has no near ally except *chloauges*, from which it is at once distinguished by: (i) its dark underside in both sexes, (ii) absence of tail, (iii) somewhat darker green lustre, (iv) complete absence of internervular lunules and spots on the upperside of hindwing, which are so often present in *chloauges* ♂, (v) very broad and very dark borders of ♀ forewing, which completely obscure light marginal lunules on upperside, (vi) narrow area proximate to anteciliar line is green, not white as in *chloauges*, and (vii) if present, the orange lunule in area 2 is much smaller on both sides of the hindwing in both sexes.

This conspicuous and lovely species was discovered by me early in October, 1952 flying along a steep hillside at Inyanga, about three miles up the circular drive from Rhodes Estate Hotel, where the road to the Old Fort breaks away. It was flying in company with other *Lepidochrysops*, namely *coxii* Pinhey, *inyangae* Pinhey, *violetta* Pinhey, *mashuna* Trimen and *methymna* Trimen. The females kept to the lower slopes, often settling in the shelter of eroded dongas. Many escaped owing to the difficulty of pursuit in such rough country. I have much pleasure in naming it after my wife, whose kindly tolerance and quiet support over many years have made my hobby so enjoyable.

**L. barnesi** sp.n. Pls. 1 and 2, figs. 16 and 17.

Holotype ♂, allotype ♀, 27 paratypes (21 ♂♂, 6 ♀♀) in my collection, and 4 paratypes (3 ♂♂, 1 ♀) in collection of B. D. Barnes, and a pair in Transvaal Museum, all taken from 5,500 to 6,000 feet on the Chimanimani Mts., S. Rhodesia, from 11-14th October, 1952.

*Holotype* ♂. Wings royal blue with linear marginal dark brown border. Cilia lighter brown. *Upperside-forewing*. Costa narrowly brown. Thin brown bar closing cell. *Hindwing*—costa more broadly brown. Black spot in area 2 with orange lunule heavily dusted with brown. *Underside*—dark grey brown with darker markings and black spots exactly as in *L. ruthica*, described above, but discal spots in both wings are somewhat smaller and more clearly ringed with whitish grey. *Hindwing*—spots in 1c and 2 with blue metallic scales. Orange lunule again obscured by brown dusting.

*Allotype* ♀. Blue with dark brown borders, cilia light brown. *Upperside-forewing*. Broad brown border (2 mm.) along whole of costa and margin, widening at apex (4 mm.). A darker brown oval spot at end of cell. Some trace of whitish lunules in areas 1b, 2 and 3. The blue is duller than the ♂ and inclined to purple. *Hindwing*—brown border is very broad along costa (3-4 mm.). Along the margin it is interrupted by whitish blue lunules in areas 1c, 3, 4 and 5, which unite with narrow light blue submarginal line, thus enclosing dark brown almost triangular spots. In area 2 a large black spot with orange lunule. A fine, very dark brown anteciliar line from vein 1 to 7. Remainder of wing is blue like forewing with underside sagittate marks showing through in areas 3-5. *Underside*—exactly as in ♂ with spots a little larger.

There is some variation in the paratypes. A number of males have a very distinct orange lunule on hindwing upperside next to the usual black spot, and two ♀♀ have a correspondingly larger orange lunule. In these two ♀♀ the submarginal lunules are less conspicuous and almost the same blue as the large basal and medial blue area. It is possible that two species are involved, but until more material, especially ♀♀, is available, the matter must temporarily rest where it is. Another extraordinary feature of this large series is that half the specimens have a short tail at the end of vein 2 on the hindwing, while the rest show no sign of such an extension of the cilia at this point.

This species differs from all its congeners in its shade of blue, which is considerably deeper than *L. patricia* Trimen. The general marking of the underside is very similar to most species of *Lepidochrysops*. My friend, B. D. Barnes, and I found it in some numbers flying along both slopes of a small valley in the magnificent Chimanimanis, the regular contour path of the ♂♂ being very reminiscent of *L. asteris* God. They were on the wing from 9 to 3 o'clock, but I found fresh specimens could be flushed by 8 a.m. and as late as 5 p.m., when they were much less active and easily netted. I have much pleasure in naming it after Barnes, who has made so many notable additions to the Lepidoptera of S. Rhodesia.

### Genus OBORONIA Karsch

*O. gussfeldti* Dewitz. Pls. 1 and 2, Fig. 13.

1879, Nov. Acta Akad. Nat. Cud.: 41(2), 206.

Two pairs, taken in the Maribane Forest, P.E.A., on September 8th, 1952, by R. Carcasson, appear to be this West African species. They were flying along a stream slowly, and were very conspicuous. It is an addition to the list of our zone. One pair is in my collection, the other in that of the captor who farms at Butler South in the Chitora hills near Umtali, S. Rhodesia.



## FAMILY HESPERIIDAE

## Genus ABANTIS Hopffer

**A. bicolor** Trimen

1864, Trans. ent. Soc. Lon.: 180.

This skipper is still to be found in many suitable bushclad valleys along the Natal coast, but never in large numbers. It has always seemed probable to me that it must have been common before the sugar industry denuded so many areas of their bush. This view received support in April, 1952, when I saw 43 specimens, mostly ♀♀, feeding on wild flowers in the grass along a broad glade in the Ngoye forest, Zululand, one morning in half a mile, *A. paradisea* Butler, also being present in fair numbers.

**A. arctomarginata** Lathy

1901, Trans. ent. Soc. Lond.: 34.

Very few records of this rare Abantis have been made south of the Zambesi. R. Carcasson captured a male at rest under a leaf in a forest near Maribane, P.E.A., in September, 1952, and I had the good fortune to meet with another flying in typical fashion in a glade later the same month at Butler South 40 miles south of Umtali. It settled just like other members of this genus on a leaf some 12 feet from the ground.

**A. venosa elegantula** Mabille

1890, Ann. Soc. Ent. Fr.: (6) x, 32.

J. Hart took a specimen in January, 1952, at Banket, in S. Rhodesia, which seems to fit this subspecies, hitherto only reported from the West coast.

## Genus KEDESTES Watson

**K. lepenula sublineata** sp.n., Pls. 1 and 2, Fig. 18.

Holotype ♂, allotype ♀, taken by F. Gaerdes at Okahandja, S.W.A., in January and March, 1951, in my collection.

Brig. W. Evans established, by studying the genitalia, that *K. macomo* Trimen and *K. marshalli* Aurivillius were conspecific with *K. lepenula* Wallengren, which is so very differently marked on the upperside, and which replaces them in the western half of our zone. It is therefore very surprising that my friend Fritz Gaerdes should have discovered a fourth subspecies in the dry areas of South West Africa, where one would have expected *lepenula lepenula*.

*Holotype* ♂. *Upperside*—yellow spots exactly as in *macomo* and *marshalli*, but not quite so sharply defined. *Underside*—yellow as in *lepenula lepenula* and entirely without black spots or anteciliar line on either wing, but the veins are distinctly but finely black, particularly on the hindwing. The dark brown area along the forewing inner margin, present in *macomo*, is greatly reduced.

*Allotype* ♀, exactly as in ♂, except apex of forewing is less pointed. The delicate black lines and absence of black spots make this subspecies very distinct from the other forms that have been known for so long.

Genus SEMALEA Holland

**S. arela** Mabille

1891, Bull. Soc. ent. Belg.: 69.

This skipper has not been reported before from our zone. It was very common in the Dondo forest near Beira in August, 1952, flying rapidly above the grass in glades until 10 a.m. when it disappeared completely. It settles with its wings half open on a blade of grass and is easily netted. Females were rare and kept to the shade. Two males were also taken at 3500 feet in the Chirinda Forest early in September, though none were observed in the Amatongas.

Genus BORBO Evans

**B. ferruginea** Aurivillius

Seitz Macro. of the World, 13: 536.

A new subspecies is being kindly described by Brig. W. H. Evans of the British Museum, who some years ago revised the African Hesperidae. It was discovered by the Cooksons and myself in the Dondo forest in August, 1952, and is another addition to our Southern African list. It is apparently rare. I hunted hard for it for eight days after David Cookson had taken the first, and only caught three ♂♂ and a ♀, missing one or two more as they darted away in the early morning from their perches, always a leaf in the deep forest that was bathed in sunshine. They had another flight in the afternoon. In April, 1953, I captured a worn pair in the same forest, and a perfect ♀ in thick bush on the Savanne road only 10 miles from Beira.

**B. chagwa** Evans

1937, Cat. Afr. Hesp.: 183.

This species was founded on a single specimen from Uganda. In August, 1952, I captured 2 ♂♂ and 1 ♀ in the Dondo forest, P.E.A. Being unable to identify them with any certainty, I sent a pair to Brig. Evans at the British Museum. This led to a re-examination of "the genitalia of the *chagwa*, *kilwa*, *guttana* complex" with the result that Brig. Evans now considers these three species he described in his Catalogue or amending papers are conspecific. My male proved to be the subspecies *kilwa* and the female *guttana*. "The series shows a great deal of individual variation." A few specimens have been taken by B. D. Barnes and others on the Vumba near Umtali. It appears likely that this variable species is widespread in this part of our zone. I found it settling some 6-10 feet up in the late afternoon on leaves in the forest glades. It was shy and elusive. *B. guttana* was described in 1946, *Ann. Mag. Nat. Hist.* II, xiii, 641.

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